ORDINANCE NO. _-2022

An amendment to the Code of Bryan County, revising the Bryan County Unified Development Code, set forth in Subpart B of the County Code, Chapter 114, specifically Article IV, "Development Procedures Requiring Administrative Review," and Article VI, "Site Development Standards;" and to repeal all other ordinances or parts of ordinances in conflict with such revisions.

SECTION ONE

WHEREAS, the Board of Commissioners of Bryan County ("Board of Commissioners") have determined that it is in the best interest of Bryan County to promote and protect the health, safety, morals, order, convenience, prosperity, and general welfare of the Citizens of Bryan County, to achieve the goals and objectives of Bryan County's Comprehensive Plan through effective zoning and subdivision planning in unincorporated Bryan County, and to revise Articles IV and VI of Chapter 114 of Subpart B of the Code of Bryan County; and

WHEREAS, the Board of Commissioners has determined that the existing ordinances regulating required buffers, minor subdivisions, and administrative relief should be amended in order further the public health, safety, and welfare, by adopting the amendments attached hereto in their entirety and by amending or repealing all other ordinances or parts of ordinances in conflict therewith as more particularly set forth below; and

WHEREAS, Ga. Const. Art. IX, § II, 1 IV grants the Board of Commissioners the authority to adopt plans and exercise the power of zoning, subject to general laws passed by the General Assembly establishing procedures for the exercise of the zoning powers; and

WHEREAS, O.C.G.A. §§ 36-66-1 through 36-66-6, the Georgia Zoning Procedures Law sets forth the minimum procedures governing the exercise of the zoning power; and

WHEREAS, O.C.G.A. § 36-66-2 (b) grants the Board of Commissioners the authority to provide by ordinance for such administrative officers, bodies, or agencies as may be expedient for the efficient exercise of their zoning powers, and to provide for procedures and requirements in addition to or supplemental to those required by the Zoning Procedures Law; and

WHEREAS, the Board of Commissioners has determined that the existing ordinances regulating land development in Bryan County should be amended in order to achieve the goals and objectives of Bryan County's Comprehensive Plan by adopting certain revisions to the Bryan County Unified Development Code; and

WHEREAS, the Planning & Zoning Commission recommended approval of the proposed amendments on November 15, 2022; and

WHEREAS, the Board of Commissioners held a first reading of the proposed amendments on November 8, 2022, and a second reading and public hearing on December 13, 2022; and

NOW THEREFORE BE IT RESOLVED, the Board of Commissioners of Bryan County hereby amends Subpart B of the Code of Bryan County entitled "Land Development" as follows:

SECTION TWO

The Board of Commissioners of Bryan County, Georgia, hereby ordains that the adopted Code of Bryan County, is hereby amended as more particularly set forth below. It is the intention of the Board of Commissioners, and it is hereby ordained that the following provisions shall become and be made a part of the Code of Bryan County.

SECTION THREE

Chapter 114 of the Code of Bryan County, entitled "Unified Development Ordinance" shall be amended as follows:

1. By revising the existing Article IV. Development Procedures Requiring Administrative Review, Division 1. Minor Plats, as shown in Attachment A; and
2. By revising the existing Article IV. Development Procedures Requiring Administrative Review, Division 3. Other Community Development Director Actions, Section 114-417. Administrative Relief, as shown in Attachment B; and
3. By revising the existing Article VI. Site Development Standards, Division 5. Landscaping, Tree Preservation, Buffering and Screening, as shown in Attachment C.

SECTION FOUR

Severability. If the provisions of any section, subsection, paragraph, subdivision, or clause of this ordinance shall be judged invalid by a court of competent jurisdiction, such order of judgment shall not affect or invalidate the remainder of any ordinance, section, subsection, paragraph, subdivision, or clause of this ordinance.

SECTION FIVE

Repealer. All ordinances or parts thereof that are in conflict with any provision or any section, subsection, paragraph, subdivision, or clause of this ordinance is hereby repealed to the extent of the conflict.

SECTION SIX

Effective Date. This Ordinance shall become effective immediately upon adoption.

IN WITNESS WHEREOF, I have hereunto set my hand and caused this seal to be affixed, this the 13th day of December, 2022.

Carter Infinger, Chairman,
Bryan County Board of Commissioners

ATTEST:

Lori Tyson, County Clerk

First Reading: November 8, 2022
P&Z Public Hearing: November 15, 2022
Second Reading and Public Hearing: December 13, 2022

Ordinance No. _____-2022
Attachment A:
Revisions to UDO Article IV, Division 1: Minor Plats
November 28, 2022

Article IV. Development Procedures Requiring Administrative Review

Division 1. Minor Plats

Section 114-400. Purpose

The minor plat process enables staff approval of applications that have minimal impact on public facilities, do not require the construction or extension of the County roadway network or utility infrastructure, and are consistent with County zoning, subdivision, and public improvement requirements.

Section 114-401. Applicability

Minor plats include each of the following:

(a) **Minor Subdivisions** enable the subdivision of land to create a limited number of new parcels. The new parcels may be accessed from a new or existing private road or an existing public road. If the subdivision requires the construction of a new public road, extension of an existing public road, or extension of public utilities greater than 200 feet in length, the subdivision will be considered a major subdivision.

(1) **Minor Subdivision Served by Private/Public Road** enables the creation of a maximum of six (6) buildable lots or parcels from a single parcel when:

a. Access to each parcel will be from a new private road, built to County standards;

b. Access to each parcel will be from an existing private road. If the private road is not built to County standards, the road must be brought up to current standards~~, unless the Engineering Director waives this requirement~~; or

c. Access to each parcel will be from an existing County road~~, which~~ that is constructed to current County road improvement standards.

(2) **Large Lot Minor Subdivision Served by Private/Public Road** enables the creation of a maximum of ten (10) buildable lots from a single

parcel when:

a. The average lot size is at least five (5) acres; and

b. Access to each lot will be from a new private road, built to County Rock Road standards (see Engineering Design Manual, Section 304); or

c. Access to each lot will be from an existing private road. If the private road is not built to County Rock Road Standards, the road must be brought up to current standards; or

d. Access to each parcel will be from an existing County road that is constructed to current County road improvement standards.

(3) **Minor Subdivision Served by Private Easement** enables the creation of up to three (3) lots or parcels from a single parcel when one (1) lot will have access to a public or private road built to County standards and a maximum of two (2) additional lots will be accessed from an easement.

(b) **Conveyance plats** enable the division of land into up to six (6) parcels of ten (10) acres or more from a single parcel, which are not intended to be developed for any purpose requiring a building permit without subsequent subdivision approval.

(c) **Lot line adjustments** enable changes to existing lot or parcel boundaries that do not create any additional lots or alter the overall density of the affected lots.

(d) **Plat corrections** enable corrections to errors or omissions on a recorded plat that does not materially change the boundaries of any of the parcels shown on the plat.

(e) **Dedication plats** – enable the conveyance of rights-of-way or easements.

(f) **Combination plats –** enable the combination of two (2) or more existing lots of record into one (1) lot.

Section 114-402. Limitation of Subsequent Minor Subdivisions

The minor subdivision process may be used to create no more than the maximum number of lots allowed for the applicable minor subdivision type [see **Section 114-401(a)**] ~~once in a five-year period~~ for any parcel that is included within the boundaries of a minor subdivision or is a remaining portion of a parcel that was previously subdivided using the minor subdivision process.

Section 114-403. Application

The formal approval process for each type of minor plat begins with the submittal of a complete application to the Community Development Director in accordance with **Appendix D**. For minor subdivisions, applicants are encouraged to discuss the proposed subdivision prior to formal application. For subdivisions involving the creation of a private road, the applicant shall provide a proposed maintenance and access agreement, which will include the rights and obligations, including financial, for owning, using, and

maintaining the private road. For subdivisions using existing private roads for access to one or more lots, the applicant shall provide a title report verifying the private road may be used for access.

Section 114-404. Review

(a) The Community Development Director shall review the application for completeness in accordance with **Section 114-213**.

(b) Upon finding the application complete, the Community Development Director shall review the proposed minor plat and any other documents deemed necessary to determine the compliance of the proposed minor plat with this UDO and other applicable laws. The review of the following individuals must also be obtained for minor subdivisions when required by the Community Development Director:

(1) The health department shall review the proposed water supply and sewerage disposal system and determine compliance with this UDO and other applicable rules and regulations.

(2) The Engineering Director shall review the proposed minor subdivision and determine the conformity of proposed road alignment with existing roads, the road classification plan and proposed public roads.

(3) The Engineering Director shall review the proposed water, sewer, and stormwater management improvements for compliance with applicable requirements.

(4) If deemed necessary by the Community Development Director, review and comment from any local, State, or federal agencies, and consultants or other professionals retained by the County may be obtained.

Section 114-405. Public Hearing and Notice

Notice and a public hearing are not required for minor plats.

Section 114-406. Approval Criteria

(a) **Approval Criteria for Minor Subdivisions served by Private/Public Road**. Before approving this type of subdivision, the Community Development Director shall find that the proposed subdivision complies with each the following provisions:

(1) All lots created by this process shall comply with the minimum area and dimensional standards of this UDO. Area included within the right-of-way shall be excluded for purposes of calculating minimum lot area. However, the right-of-way area may be included for purposes of calculating the maximum density allowed in the zoning district;

(2) Each lot shall be independently accessible from an abutting public or private road ~~created~~ constructed in compliance with currently applicable Bryan County standards~~, unless the Engineering Director~~

~~waives any necessary improvements to bring the road to County standards.~~

(3) No public road shall be created through the minor subdivision process, but the plat may include the dedication of public right-of-way for the widening of existing public roads abutting lots in the proposed minor subdivision;~~.~~

(4) Private roads serving four (4) or more parcels shall be placed in a private road right-of-way of at least forty (40) feet in width, unless the Engineering Director finds that greater width is needed due to topography, drainage, or private road alignment. The road shall be designed and constructed to comply with the ~~County~~ Rock Road ~~Crush and Run~~ Standards ~~(in the~~see Engineering Design Manual, see Engineering Design Manual, Section 304);~~.~~

(5) There is adequate turnaround area for emergency vehicles, as approved by the Emergency Services Director or designee and as required by the Engineering Director per the Engineering Department Standard Details;~~.~~

(6) There is adequate turnaround area for buses as approved by the Bryan County Board of Education~~.~~;

(7) Off-site utility improvements are limited to water and/or sewer line extensions of not more than 200 feet from the nearest property line of the subdivision;~~.~~

(8) Off-site stormwater improvements are limited to abutting rights-of-way or easements, which may be used only with the owner's consent;~~.~~

(9) The applicant shall submit a Private Road Ownership and Maintenance Agreement that shall be recorded with the final plat that assigns ownership of and responsibilities for maintenance of private roads and drainage systems. Responsibility for maintenance of the private roads shall be clearly stated on the minor subdivision plat. The applicant shall also reference the recorded Private Road Ownership and Maintenance Agreement in the deeds for all lots in the minor subdivision. ~~The deeds shall be submitted to the County for review in conjunction with the Private Road Ownership and Maintenance Agreement and shall be recorded at the same time as the final plat; and~~.

~~(8)~~(10) Private roads shall be named. The applicant shall install private road name signs in accordance with the Engineering Design Manual, Section 310: *Traffic Control Plan and/or MUTCD* . Such signs shall contain the road name and the designation "private~~." The Community Development Director may require private road name signs to be a different color than public road name signs in order to distinguish maintenance responsibilities in the field.~~

~~(9)~~(11) ~~Off-site stormwater improvements are limited to abutting rights-of-way or easements, which may be used only with the owner's consent.~~

(b) **Approval Criteria for Large Lot Minor Subdivisions served by Private/Public Road**. Before approving this type of subdivision, the Community Development Director shall find that the proposed subdivision complies with each the following provisions:

(1) All lots created by this process comply with the minimum area and dimensional standards and maximum density for the zoning district in which the lots are located. In addition, the average lot size for all lots in the large lot minor subdivision shall be at least five (5) acres. The right-of-way area shall be excluded for purposes of calculating minimum and average lot area. However, the right-of way area may be included for purposes of calculating the maximum density allowed in the zoning district;

(2) Each lot shall be independently accessible from an abutting public road that is constructed to current County road improvement standards or from a new or existing private road built to County Rock Road Standards (see Engineering Design Manual, Section 304);

(3) New private roads shall be placed in a private road right-of-way of at least forty (40) feet in width, unless the Engineering Director finds that greater width is needed due to topography, drainage, or private road alignment; and

(4) The subdivision complies with Section 114-406(a)(3) and (a)(5) through (a)(10), above.

~~(b)~~(c) **Approval Criteria for Minor Subdivisions Served by Private Easement**. Before approving a minor subdivision served by private easement, the Community Development Director shall find that the proposed subdivision complies with each the following provisions:

(1) All lots created by this process shall comply with the minimum area and dimensional standards of this UDO. Area included within the easement shall be excluded for purposes of calculating minimum lot area.

(2) An easement with a minimum width of thirty (30) feet shall be provided for lots created by this process and not having direct access from an existing road. The Engineering Director may require an increased width if they find that greater width is needed due to topography, drainage, or private road alignment. The road shall be designed and constructed to comply with the Private County Dirt Road Standard in the Engineering Design Manual. The plat shall include a note addressing maintenance of the easement.

(3) At least one (1) lot shall be independently accessible from an abutting public road.

(4) No public road shall be created through this process, but the plat may include the dedication of public right-of-way for the widening of existing public roads abutting lots included in the minor subdivision.

(5) Off-site utility improvements are limited to water and/or sewer line extensions of not more than 200 feet from the nearest property line of the subdivision.

(6) Off-site stormwater improvements are limited to abutting rights-of-way or easements, which may be used only with the owner's consent.

~~(c)~~(d) **Approval Criteria for Lot Line Adjustments**. Before approving a lot line adjustment, the Community Development Director shall find that:

(1) All resulting lots shall comply with minimum area and dimensional standards of this UDO; or

(2) Where one (1) or more of the existing lots is non-conforming, the proposed lot line adjustment improves overall compliance of the affected lots.

~~(d)~~(e) **Approval Criteria for Plat Corrections**. Before approving a plat correction, the Community Development Director shall find that the amendments are limited to changes required to correct a surveying or scrivener's error or omission, and do not change the density, eliminate restrictions, or substantively change the rights and responsibilities of the owners of the affected lots.

~~(e)~~(f) **Approval Criteria for Dedication Plats**. Before approving a dedication plat, the Community Development Director shall find that subdivision is created solely to document the conveyance of right-of-way or an easement for a public or private road, drainage improvement, utility improvement or other public purpose.

~~(f)~~(g) **Approval Criteria for Combination Plats**. Before approving a combination plat, the Community Development Director shall find that the lots to be combined are existing lots of record.

~~(g)~~(h) **Approval Criteria for Conveyance Plats**. Before approving a conveyance plat, the Community Development Director shall find that:

(1) All parcels resulting from the conveyance plat process shall be ten (10) acres or larger in net area, excluding water bodies, protected wetlands, and land with elevations below the mean high tide, provided that any parcel that is placed in a conservation easement shall be ten (10) acres or larger in gross area.

(2) The conveyance plat shall include the following statement: "No building permits will be issued for a building on any lot in this subdivision."

Section 114-407. Community Development Director Action on Minor Plats

The Community Development Director shall approve or disapprove the application within thirty (30) days of finding the application complete and shall notify the applicant of the action in writing. If the plat complies with the requirements of these regulations, the Community Development Director and Engineering Director shall sign the proposed final plat which can then be recorded in the Real Estate Division of the Clerk of Court. If the Community Development Director finds that the proposed minor plat does not comply

with this UDO and other applicable laws, then such plat shall be disapproved, and reasons noted for such disapproval in the records. The Community Development Director may not approve the minor plat until the Engineering Director and Public Health Director have signed the minor if their review is determined to be required.

Section 114-408. Appeals

Decisions of the Community Development Director made pursuant to this Division are appealable to the Board of Adjustment. Appeals shall follow the procedures identified in **Article III. Division 6.**

Section 114-409. Variances

Variances are not permitted for the maximum number of parcels that may be created pursuant to the Minor Subdivision process. Additionally, variances are not permitted for the development standards identified **Section 114-406(a)(4)**, Section 114-406**(b)(3)**, and Section 114-406**(c)(2)** ~~and **Section 114-406(b)(2)**~~.

Section 114-410. Effect of Approval

After approval, the applicant may proceed with installation of the private road or easement and any other required public improvements provided they receive the necessary approvals, including but not limited approved construction plans, encroachment permits, Army Corps of Engineers' permit, and EPD and Public Health approvals. No building permits shall be granted until required improvements are completed and approved in compliance with **Section 114-411**, and the plat is recorded in compliance with **Section 114-412.**

Section 114-411. Inspection

The Engineering Director shall inspect all required improvements to determine compliance with applicable requirements and provide written approval of the improvements or a written explanation of any deficiencies precluding approval.

Section 114-412. Recording

Applicant shall record the minor plat within six (6) months of the Community Development Director's approval. Failure to record shall result in expiration and require resubmittal. If the minor plat approval included approval of road construction plans, the applicant shall record the final plat within three (3) months of completion of the road construction.

Ordinance No. _____-2022
Attachment B:
Revisions to UDO Article IV, Division 3: Other Community Development Director Actions

November 28, 2022

Article IV. Development Procedures Requiring Administrative Review

Division 3. Other Community Development Director Actions

Section 114-417. Administrative Relief

(a) **Purpose**. Administrative relief provides for expeditious review of minor deviations from the provisions of this chapter under specified circumstances. The administrative relief process does not involve a public hearing unless a decision is appealed by the applicant to the Board of Adjustment.

(b) **Initiation**. A property owner may initiate an application. The applicant shall file a completed application with the Community Development Director in conformance with **Section 114-213**.

(c) **Types of Administrative Relief**. Administrative relief may be granted for any of the following situations:

(1) **Building Setback Reduction**: The side and rear building setbacks shall not be less than ninety (90) percent of the minimum setback requirement. Front building setbacks shall not be less than eighty (80) percent of the minimum setback requirement. All setbacks shall be required to meet minimum requirements of the Fire Code.

(2) **Landscaping and Buffers**: Minimum buffer width and planting requirements may be reduced to create a more natural undulating buffer, provided that the average width of the buffer on each side of a parcel meets the minimum and not more than twenty (20) percent of the length of a buffer is below the minimum required width.

(3) **Parking Spaces**: The number of parking spaces may be reduced based on the proposed use, site conditions and availability of on-street parking. Applicant shall

submit a parking study or parking analysis from a recognized publication, e.g., ITE Trip and Parking Generation Manual, when requesting such administrative relief.

(4) **Parking Dimensions**: The minimum parking aisle width may be reduced by up to one (1) foot per travel lane if parking space width of every space along the aisle is increased by at least one-half (1/2) foot.

(5) **Arterial and Collector Road Buffers**: The arterial and collector road buffer may be eliminated, if the subject property meets the criteria specified in **Section 114-117(e)**.

(d) **Criteria for 114-117(c)(1) through (c)(4)**. Administrative relief may be granted when the Community Development Director finds that the application meets each of the following criteria:

(1) The relief will not create a burden on adjacent property owners or conflict with the zoning district's purposes;

(2) The relief is necessary to allow efficient use of the property due to site conditions or circumstances that do not commonly affect properties in the district;

(3) The relief does not convey a right or privilege that would be unavailable to similarly situated properties; and

(4) For development within a PD zoning district, the request is for an individual lot or building and would not constitute a PD amendment.

(e) **Criteria for 114-117(c)(5)**. Administrative relief may be granted for arterial and collector road buffers when the Community Development Director finds that the application meets each of the following criteria:

(1) The proposed development advances Bryan County's Comprehensive Plan goal to create and maintain a long-term sustainable and diverse economic base;

(2) The subject property is zoned I-1 or I-2;

(3) The subject property is at least 1,000 acres in size;

(4) The proposed development is a significant economic development project, such as a project identified as a megasite by the State of Georgia or a joint development project between Bryan County, a development authority and/or the State; and

~~(4)~~(5) The proposed development has received State and

local tax incentives.

~~(e)~~(f) **Action**. After a review period of not more than fifteen (15) business days, the Community Development Director shall approve, conditionally approve or disapprove any application for administrative relief and provide written documentation justifying the action.

Ordinance No. _____-2022
Attachment C:
Revisions to UDO Article VI, Division 5: Landscaping, Tree Preservation, Buffering and Screening

November 28, 2022

Article VI. Site Development Standards

Division 5. Landscaping, Tree Preservation, Buffering and Screening

Section 114-626. Purpose

The requirements of this Division are intended to:

(a) Maintain the rural character of Bryan County;

(b) Protect and preserve mature, native, and healthy trees;

(c) Increase tree coverage to enhance the environmental and aesthetic benefits that trees provide;

(d) Improve the appearance of vehicular and pedestrian use areas;

(e) Provide buffers for different land uses to eliminate or minimize potential nuisances such as dust, litter, noise, glare of lights, signs and unsightly buildings or parking areas; and

(f) Protect and conserve property values within the Bryan County.

Section 114-627. Applicability

This Division shall apply to the following development activities and uses:

(a) **Buffers** shall be required for development requiring major subdivision, planned development or site plan approval in accordance with **Section 114-630**.

(b) **Tree preservation** shall be required for development requiring minor or major subdivision, planned development or site plan approval, and for any use other than those exempted by **Section 114-634.**

(c) **Canopy retention or replacement** shall be required for all major residential and non- residential subdivisions, planned developments and for development of multi-family, mixed-use or non-residential development.

(d) **Parking lot landscaping** shall be required for development requiring a PD approval or site plan approval in accordance with **Section 114-631**.

(e) **Landscape maintenance** shall be required for all new development, redevelopment and use of existing properties in accordance with **Section 114-633.**

Section 114-628. Exemptions

The following uses shall be exempt from the provisions of this Division:

(a) Lots developed for single-family and duplex residential uses that are not a part of a major subdivision;

(b) Public utility providers are exempt from tree preservation requirements for facilities in easements and rights-of-way but are subject to perimeter buffering requirements for substations, lift stations and treatment plants;

(c) Commercial timber operations;

(d) Mitigation of wetlands pursuant to an approved plan from the US Army Corps of Engineers (USCOE);

(e) Trees grown specifically for sale by commercial nurseries; and

(f) Any bona fide agricultural or silviculture use.

Section 114-629. Buffers Required

(a) **Purpose and Applicability**. Buffers are intended to retain the rural character of Bryan County and to minimize negative impacts between abutting developments. Buffers are required:

(1) Along the perimeter boundaries of major subdivisions;

(2) Along arterial and collector street frontage for all major subdivisions and for developments requiring site plan approval; and

(3) Along the boundaries between properties in different zoning districts at the time of subdivision and site plan development.

(b) **Subdivision Boundary Buffers**. The outer perimeter buffers around major subdivisions shall be at least thirty (30) feet in depth. If other buffer requirements conflict with the minimum depth of this paragraph, the greater standard shall apply. Such buffers may be platted as part of lots for development for agricultural, multi-family, mixed-use, and non-residential subdivisions, but must be on a separate lot for residential development in a RR or R district. The same buffer requirement applies to any parcel being zoned to a commercial, business or industrial use. ~~The Community Developer Director is authorized to modify this requirement for I-2 zones.~~

(c) **Arterial and Collector Road Buffers**. Any major subdivision or development requiring site plan approval that abuts an arterial or collector street shall provide a buffer along the street meeting the following requirements.

(1) Minimum buffer depth shall be:

a. One-hundred (100) feet along an arterial road for a subdivision in an RR, R-15, RM or R-MH, or PD zoning district;

b. Fifty (50) feet along an arterial road for a development in B-1, B-2, C-I, I-1, I-2, or P/I district;

c. Thirty (30) feet along collector roads; and

d. For the WP district, the minimum buffer shall comply with the standards identified in **Article V. Division 5.Section 114-520(d)**.

~~(2) The Board of Commissioners may grant up to a twenty five (25) percent reduction in the width of buffers where an applicant has provided an equivalent area of open space in excess of the minimum requirements of **Section 114-637.**~~

~~(3)~~(2) Buffer design shall comply with the provisions of **Section 114-630**.

~~(4)~~(3) Subdivision and site entrances and driveways may traverse required buffers.

~~(5)~~(4) For industrial or commercial retail or service uses, the applicant may request to develop a streetyard as provided in **Section 114-631** instead of a buffer. The Community Development Director may approve such request if the streetyard would maintain the character areas and fulfill the purposes identified in **Section 114-626(a).**

(d) **Buffers Between Land Uses and Zoning Districts.** At the boundaries of different zoning districts, between certain land uses, or between uses within planned developments that are only authorized in different zoning districts (e.g., between single family residential and multi-family residential or between non-residential and residential uses), buffers shall comply with the minimum requirements established in **Exhibit 629** and the design requirements of **Section 114-630**. Where **Exhibit 629** specifies more than one applicable buffer type for the proposed development, the widest required buffer applies.

Exhibit 629: Minimum Buffer Widths Between Land Uses and Zoning Districts

Land Use or Zoning District of Proposed Development	Adjacent Land Use or Zoning of Abutting Development									
	A	RR, R-15, or RMH	RM or B-1	B-2 or C-I	I-1, I-2 or P/I	PD	WP	Detached Single-Family or Duplex	Townhouse	Multi-Family
A	None	None	None	None	None	None	None	None	None	None
R-R or R-15	50’	30’	30’	40’	40’	30’	40’	30’	30’	30’
RM	50’	40’ (with berm), or 100’ (without berm)	None	None	30’	30’	30’	75’	None	None
RMH	See **Section 114-737**									
B-1	50’	40’	None	None	30’	30’	30’	40’	None	None
B-2 or C-I	50’	40’	None	None	20’	40’	20’	40’	None	None

Land Use or Zoning District of Proposed Development	Adjacent Land Use or Zoning of Abutting Development									
	A	RR, R-15, or RMH	RM or B-1	B-2 or C-I	I-1, I-2 or P/I	PD	WP	Detached Single-Family or Duplex	Townhouse	Multi-Family
I-1 or I-2, Type A (see **Exhibit 630b**)	75’	75’	50’	30’	None	50’	None	75’	50’	50’
I-1 or I-2, Type B (see **Exhibit 630b**)	50’	50’	40’	20’	None	40’	None	50’	40’	40’
I-1 or I-2, Type C (see **Exhibit 630b**)	40’	40’	30’	15’	None	30’	None	40’	30’	30’
~~I-1, I-2 or~~ P/I	50’	40’	30’	20'	None	40’	None	75’	50’	50’
PD[1]	50’	50’	30’	40’	40’	30’	40’	50’	30’	30’
WP	200’	200’	200’	200’	200’	200’	200’	200’	200’	200’
Major Subdivision, Detached Single-Family or Duplex	50’	50’	30’	40’	40’	30’	40’	50’	30’	30’
Major Subdivision, Townhouse	50’	75’	None	None	30’	30’	30’	75’	None	None
Multi-Family Development	50’	75’	None	None	30’	30’	30’	75’	None	None
~~Note: (1)~~[1] The buffer standard may be modified during the PD approval process.										

Section 114-630. Buffer Design Requirements

(a) **Generally**. Buffers required under this section shall consist of undisturbed vegetation, planted trees and shrubs, or a combination of vegetation (planted or existing) and walls and berms that effectively screen development from the abutting road or property. The intent of these requirements is to encourage the preservation of mature and healthy, and indigenous vegetation. It is not the intent of this UDO to require existing vegetation to be removed in order to plant immature non-native species or maintain unhealthy tree stands.

(b) **When Required**. Prior to approval of construction plans for a subdivision or site plan requiring buffers, the applicant shall submit the landscape plans with buffer details for review and approval.

(c) **Buffer Planting Requirements.**

(1) **Planted Buffers. Exhibit 630a and Exhibit 630b** list~~s~~ the number of each type of plant required to be planted within buffers that are planted in conjunction with subdivision or site development. At least thirty (30) percent of large and medium buffer trees and seventy-five (75) percent of small buffer trees and ~~fifty (50) percent of~~ shrubs shall be evergreens,

except as otherwise specified in this Division. Not more than twenty-five (25) percent of required trees or shrubs may be of the same species.

Exhibit 630a: Minimum Buffer Planting Requirements

Type of Plant[1]	Number of Plants Required Per 100[2] Linear Feet of Buffer					
Buffer width (feet)	20	30	40	50	75	100
Large Canopy trees	2	2	3	4	6	8
Medium Canopy trees	1	2	2	3	3	4
Small Canopy trees	~~1~~2	~~2~~4	~~2~~4	~~3~~6	6	~~4~~8
Medium or Large Shrubs	~~4~~6	~~6~~8	~~8~~10	12	16	~~24~~20
Small Shrubs	4	6	8	8	10	12
[1] See **Section 114-635** for list of large, medium and small canopy trees and shrubs.						
[2] For buffers exceeding 100' in width, the Community Development Director shall approve the required plantings.						

Exhibit 630b: Minimum Buffer Planting Requirements for I-1 and I-2 Districts

	Buffer Types for I-1 and I-2 Districts					
Type of Plant[1]	Number of Plants Required per 100 Linear Feet of Buffer					
Buffer Width (feet)	15	20	30	40	50	75
I-1 or I-2 Type A						
Large Canopy Trees	n/a	n/a	2	n/a	4	6
Medium Canopy Trees	n/a	n/a	2	n/a	3	3
Small Canopy Trees	n/a	n/a	4	n/a	6	6
Medium or Large Shrubs	n/a	n/a	8	n/a	12	16
Small Shrubs	n/a	n/a	6	n/a	8	10
I-1 or I-2 Type B						
Large Canopy Trees	n/a	2	n/a	5	6	n/a
Medium Canopy Trees	n/a	2	n/a	4	5	n/a
Small Canopy Trees	n/a	6	n/a	7	8	n/a
Medium or Large Shrubs	n/a	12	n/a	20	24	n/a
Small Shrubs	n/a	8	n/a	10	12	n/a
I-1 or I-2 Type C						
Berm Height (min)	n/a	n/a	n/a	4 ft	n/a	n/a
Large Canopy Trees	2	n/a	6	3	n/a	n/a
Medium Canopy Trees	2	n/a	5	2	n/a	n/a
Small Canopy Trees	6	n/a	8	4	n/a	n/a
Medium or Large Shrubs	10	n/a	14	18	n/a	n/a
Small Shrubs	6	n/a	12	18	n/a	n/a
[1] See **Section 114-635** for list of large, medium, and small canopy trees and shrubs.						

(2) **Existing Vegetation**. Where mature existing vegetation is protected and retained during the development process, the Community Development Director may reduce the required buffer plantings upon finding that the existing vegetation will accomplish equivalent or better screening than a planted buffer. When the existing vegetation is insufficient to provide

adequate screening, the required additional plantings shall be located to enhance the effectiveness of the natural buffer's screening and to ensure that not more than twenty-five (25) percent of trees or shrubs (existing and planted) are of the same species.

(3) **Buffer Maintenance.**

a. Required buffers will not be disturbed for any reason except for permitted signs, driveways, sidewalks, or other pedestrian or bicycle paths, walls, fences, or required landscaping, landscaping maintenance and replacement, or maintenance and construction of utility lines and drainage features that cross the buffer.

b. Where utility or drainage easements exist along property lines, the buffer shall be located adjacent to the easement and may be reduced by the width of the easement on the property where the buffer is required or twenty-five (25) percent of the required buffer width, whichever is smaller.

(4) **Buffers with Supplemental Walls or Berms.** All walls and berms shall meet the following requirements. When walls or berms ~~meeting the following requirements~~ are provided but are not otherwise required by this Division, the minimum width of a required buffer may be reduced by five (5) feet. Fences have no impact on the minimum required width of a buffer.

a. **Walls**. Any wall used as part of a buffer shall be constructed in durable fashion of brick, stone, or other masonry material or a combination thereof. Walls shall be a minimum height of six (6) feet. Where walls are included in the buffer, they shall be located along the interior side of the buffer.

b. **Berms**. Berms shall be a minimum height of four feet with a maximum slope of 3:1. Berms in excess of six (6) feet in height shall have a maximum slope of 4:1 as measured from the exterior property line. Berms shall be stabilized to prevent erosion and shall be landscaped. **Exhibit 630c** and **Exhibit 630d** illustrate the two buffer options where berms are required.

Exhibit 630c: 40-foot Buffer Option for RM District Adjacent to RR, R-15, or RMH

Exhibit 630d: I-1 and I-2 Districts 40-foot Type C Buffer

Section 114-631. Parking Area Landscaping

(a) **Applicability**. Parking area planting requirements shall apply to all development or redevelopment that requires the establishment of ten (10) or more parking spaces.

(b) **Existing Parking Lots**. For existing parking lots that currently do not comply with the required parking lot plantings, such plantings shall be provided when any one (1) of the following occurs:

(1) A new principal building is constructed;

(2) A building addition is constructed that expands the building footprint by at least the lesser of thirty (30) percent or five-thousand (5,000) square feet;

(3) Rehabilitation of a building with a non-conforming parking lot that exceeds fifty (50) percent of the appraised value of the building.

(4) An existing parking lot is reconstructed or repaved or substantially modified;

(5) When an existing parking lot under ten thousand (10,000) square feet in area is expanded by fifty (50) percent or more in total surface area; or

(6) When an existing parking lot over ten thousand (10,000) square feet in area is expanded by twenty-five percent (25%) or more in total surface area.

(c) **Interior Parking Lot Planting.**

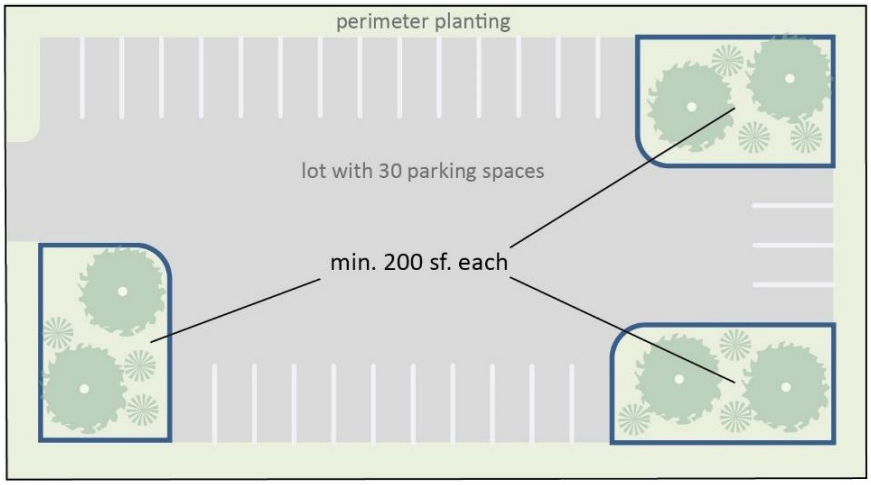
(1) An interior planting island shall be provided for every ten (10) spaces. Each island shall contain a minimum of 200 square feet with a minimum dimension of eight (8) feet. Islands are not required in parking areas dedicated to tractor trailer parking. The Community Development Director shall have final authority on determining if an area shall be considered “tractor trailer truck parking.”

(2) Ten (10) percent of the parking area (spaces and drive aisles) will be landscaped in a manner as to divide and break up the expanse of paving with islands and barriers. These areas must be located throughout the parking area so that no parking space is more than 100 feet from the nearest tree. For every ten (10) off-street parking spaces, a minimum of one (1) tree and three (3) shrubs must be planted within required islands and barriers of the parking area.

(3) Planting islands should be dispersed in a safe and efficient manner to promote safe pedestrian and traffic movements, and to increase on-site stormwater detention. (See **Exhibit 631**)

(4) Parking lot planting shall be provided in addition to required buffers or perimeter plantings provided by the applicant.

Exhibit 631a: Sample Interior Parking Island and Parking Lot Layout



(d) **Parking Areas Abutting Residential Lots**. On side and rear lot lines where parking areas abut any single-family or duplex residential lot, the required buffer shall include a berm or an opaque wall or fence, not taller than six (6) feet in height and not less than forty-two (42) inches in height.

(e) **Streetyard Planting for Industrial and Commercial Areas Abutting Right-of-Way**. For properties abutting arterial or collector roads that are used for industrial or commercial retail, service, or office uses, the applicant may request to provide a street yard in lieu of a buffer. Such request must be approved by the Community Development Director. If approved, the street yard shall be adjacent to the public right-of-way and include a planting strip along the entire length of the perimeter of the street facing area excluding authorized driveway widths.

(1) For all development abutting arterial and collector roads, the following standards shall apply:

a. A minimum twenty-five (25) foot deep landscaped street yard shall be established parallel to the entire front of the property along the road right-of- way in lieu of the required buffer. If an easement parallels the right-of-way frontage and precludes the ability to meet the streetyard requirement, the streetyard shall be in addition to the easement or increased to the extent that the planting requirements can be met. (Example: If a 15-foot power easement was directly adjacent to the right-of-way and did not permit trees within it, the twenty-five (25) foot street yard would commence from the interior edge of the easement for a total of forty (40) feet).

b. The street yard shall include the number and type of plants specified in Exhibit 631b and illustrated in Exhibits 631c, 631d, 631e, and 631f.~~:~~

Exhibit 631b: Streetyard Planting Specifications

Buffer Requirements	Percent Evergreen	Street and Development Type			
		Arterial; Retail, Service, or Office Use	Collector; Retail, Service, or Office Use	Arterial; Industrial Use	Collector; Industrial Use
Width (min)	--	25 ft	25 ft	35 ft	25 ft
Large Canopy Trees[1]	30%	2[2]	1[2]	2[2]	2[2]
Medium Canopy Trees[1]	30%	3	2	4	3
Small Canopy Trees[1]	100%	2	2	3	2
Shrubs[1]	100%	A double row, staggered evergreen shrub hedge or otherwise approved continuous grouping of evergreen shrubs planted along the lot frontage planted at a minimum of 2½ feet on center and a species capable of being maintained at a 3-foot height within 2 years of planting.		A double row, staggered evergreen shrub hedge or otherwise approved continuous grouping of evergreen shrubs planted along the lot frontage planted at a minimum of 2½ feet on center and a species capable of being maintained at a 6-foot height within 2 years of planting.	

[1] Per 100 linear feet of street frontage.

[2] Spaced no more than 50 ft on center for the entire lot frontage. Where overhead utilities preclude planting large trees, groups of 3 small canopy trees shall be provided for each 1 large tree required.

Exhibit 631c: 25 ft Arterial Street Streetyard for Retail, Service, and Office Uses

Exhibit 631d: 25 ft Collector Street Streetyard for Retail, Service, and Office Uses

Exhibit 631e: 35 ft Arterial Street Streetyard for Industrial Uses

Exhibit 631f: 25 ft Collector Street Streetyard for Industrial Uses

~~1. Two (2) large canopy trees per 100 feet of linear frontage, spaced no more than 50 feet on center (o.c.) for the entire lot frontage. For areas where overhead utilities exist that preclude planting large trees, groups of three (3) small canopy trees shall be provided for every one (1) large tree required.~~

~~2. Three (3) medium canopy trees for every 100 linear feet of lot frontage~~

~~3. Two (2) small canopy trees for every 100 linear feet of lot frontage.~~

~~4. A double row, staggered evergreen shrub hedge or otherwise approved continuous grouping of evergreen shrubs planted along the lot frontage planted at a minimum of two and one-half (2 ½) feet on center and a species capable of being maintained at a three (3) foot height within two (2) years of planting.~~

~~b.~~c. Driveways should be defined using a mixture of trees, shrubs and groundcovers that will create a sense of arrival. Clusters of flowering and other ornamental plant species such as knockout roses, ornamental grasses and annuals is strongly encouraged. A minimum of 200 square feet shall be planted on each side of the entrance drive. Sight triangle requirements of **Section 114-1008** shall be maintained.

~~(2) For all development abutting collector roads, the following standards shall apply:~~

~~a. A minimum twenty-five (25) foot deep landscaped street yard shall be established parallel to the entire front of the property along the road right-of- way. If an easement parallels the right-of-way frontage and precludes the ability to meet the streetyard requirement, the streetyard shall be in addition to the easement or increased to the extent that the planting requirements can be met. (Example: If a 15-foot power easement was directly adjacent to the right-of-way and did not permit trees within it, the 25-foot streetyard would commence from the interior edge of the easement for a total of 40 feet).~~

~~b. The street yard shall include:~~

~~1. One (1) large canopy tree per 100 feet of linear frontage, spaced no more than 50 feet on center (o.c.) for the entire lot frontage. For areas where overhead utilities exist that preclude planting large trees, groups of three small canopy trees shall be provided for every one (1) large tree required.~~

~~2. Two (2) medium canopy trees for every 100 linear feet of lot frontage~~

~~3. Two (2) small canopy trees for every 100 linear feet of lot frontage.~~

~~4. A double row, staggered evergreen shrub hedge or otherwise approved continuous grouping of evergreen shrubs planted along the lot frontage planted at a minimum of two and one-half (2 ½) feet o.c. and a species capable of being maintained at a three (3) foot height within two (2) years of planting.~~

~~5. Driveways should be defined using a mixture of trees, shrubs and groundcovers that will create a sense of arrival. Clusters of flowering and other ornamental plant species such as knockout roses, ornamental grasses and annuals is strongly encouraged. A minimum of 200 square feet shall be planted on each side of the entrance drive. Sight triangle requirements of **Section 114-1008** shall be maintained.~~

~~(3)~~(2) All required street yards shall contain only living landscaping materials, mulch, and fences or walls; provided, the following may be located within the streetyard when approved by the Community Development Director:

a. Walls and fences less than five (5) feet in height shall be encouraged;

b. Vehicular access drives placed approximately perpendicular to the right-of- way;

c. Electrical, telephone, gas, water supply, sewage disposal, and other utilities may be constructed to pass through or across the required streetyard area. If the installation of such services impacts the requirements of this UDO, additional landscaping and/or streetyard area may be required to meet the intent and standards of this section;

d. Foot and bicycle paths (including sidewalks);

e. Landscape sculpture, lighting fixtures, trellises, pedestrian amenities and arbors;

f. Signs;

g. Berming or mounding of soil; and

h. Bioretention and other heavily vegetated stormwater BMPs.

~~(4)~~(3) When calculating lot frontage for minimum plantings, driveways shall be subtracted from the linear foot total.

~~(5)~~(4) Where existing or created lagoons and drainage swales will occupy a substantial portion of the required streetyard, additional depth may be required to achieve the intent of this section.

~~(6)~~(5) Any area not otherwise planted shall be mulched.

Section 114-632. Additional Screening, Planting and Fencing Requirements

(a) **Screening of Outdoor Storage, Service Areas, Mechanical Equipment and Dumpsters.** For multi-family, commercial, mixed-use, and industrial uses, authorized outdoor storage, service areas, mechanical equipment and dumpsters shall be screened with walls so they are not visible from adjacent properties or public right-of-way, in accordance with the following:

(1) The design of a screening wall, excluding the gate, shall be the same architectural style and materials as the principal building or buildings on the lot.

(2) The height of a wall shall be adequate to block view to the area being screened, but shall not exceed eight (8) feet, except as otherwise allowed by this section.

Example of screened dumpsters

(3) The height of a wall shall be measured from the finished grade at the base of the wall to the top of the wall, but shall not include columns or posts.

(4) Walls shall be interrupted at intervals not exceeding 25 feet by architectural features such as pilasters or columns or by various species of plants that are at least as tall as or taller than the wall.

(5) Such walls shall be setback a minimum of five (5) feet from any adjacent property lines.

(6) In industrial districts, the Community Development Director may approve the use of a combination of fencing and plantings in lieu of a wall to screen such features from abutting industrial property.

(b) **Landscaping at the Base of Signs**. There shall be established a landscaping area around each principal freestanding sign that is equal to or greater than the total area of all sides of the sign structure. The sign landscaping area shall extend from the base or structural supports of the sign equally in every direction, but no less than five (5) feet. Within this sign landscaping area, the following standards shall apply:

(1) All portions of the sign landscaping area shall be surrounded by protective covering and covered by landscape materials except for those ground areas that are covered by permitted structures. A minimum of eighty (80) percent of the required landscape area shall be covered with living plant materials, which may include any combination of ground covers and shrubs or mulch.

(2) Shrubs that are provided within the sign landscaping area must be at least twelve (12) inches tall at the time of planting and be of a species that will not normally exceed four (4) feet in height at maturity.

(3) Plant materials may be clustered for decorative effect following professional landscaping standards for spacing, location and design.

(c) **Street Trees.** For single family and duplex lots within a major subdivision, including a PD, at least two (2) large canopy trees shall be planted within the six-foot planting strip, as required in **Article X**, between the edge of pavement for the road and the sidewalk along the frontage of each lot. The developer shall include a street tree planting plan and installation schedule with the required landscape plans. Unless otherwise approved by the Board of Commissioners, street tree maintenance and replacement shall be the responsibility of the subdivision's Homeowner's Association. In order to provide a unified streetscape, street trees do not need to comply with the maximum genus and species requirements. The CCRs for the homeowners' association shall clearly identify maintenance responsibility for the trees, and the ongoing duty to maintain the street trees. The street trees shall also count toward required tree canopy for the overall subdivision. If the homeowners' association fails to maintain the street trees, the County may remove and replace such trees and bill the homeowners' association.

(d) **Fences and Walls.**

(1) Except as otherwise required by this UDO, a fences or walls shall be constructed in durable fashion of brick, stone, or other masonry material or wood posts and planks or metal or other materials specifically designed as fencing materials or a combination thereof.

(2) Unless otherwise specified, required walls and fences shall be a minimum height of six (6) feet above grade.

(3) No more than twenty-five (25) percent of required fence surfaces shall be left open and the finish side of the fence shall face the abutting road or property. A chain link fence with plastic, metal or wooden slats may not be used to satisfy fencing requirements.

(4) No fence or wall located in a required setback in a RR-2.5, RR-1.5, RR-1, R-15, R-M, RMH and PD zoning district shall be built to a height more than eight (8) feet above grade.

(5) No fence or wall located in a required setback in a business, commercial or industrial district shall be taller than ten (10) feet above grade.

(6) The capital of a fence post or column may extend up to two feet above the maximum height limit.

(7) No fence or wall may be constructed which will block or impede the flow of stormwater runoff within a storm drainage easement.

(8) All fences and walls located at road intersections shall conform to the sight requirements at intersections in **Section 114-1008**.

Section 114-633. Plant, Planting and Maintenance Standards

(a) **Plant Material Standards**. The following standards apply as a minimum to all required buffer, streetyards, and other planting requirements, including plantings for canopy coverage unless specifically stated in other parts of this division.

(1) Native and regionally appropriate plant species are required. Invasive species, as identified by the United States Forest Service and/or the University of Georgia, are prohibited from being planted.

(2) All plant and tree material shall meet the American Standard for Nursery Stock standards that are published by and available from the American Association of Nurserymen.

(3) Tree and landscape materials selected for planting must be free from injury, pests, disease, nutritional disorders or root defects, and must be of good vigor in order to assure a reasonable expectation of survivability.

(4) The minimum standards specified in **Exhibit 633a** shall apply to all plantings required by this section at time of planting, except as otherwise specified.

Exhibit 633a: Plant Specifications[1]

Plant Type	Min. Diameter (Trees) or Min. Spread (Shrubs)	Min. Height	Canopy Coverage	Other
Canopy trees–large	3 in. caliper	16 feet	1500 sq. ft./tree planted	
Canopy trees–medium	2 in. caliper	10 feet	550 sq. ft./tree planted	Multi-stemmed – one (1) in. on any cane
Canopy trees–small	1½ in. caliper	6 feet	250 sq. ft./tree planted	Multi-stemmed – one-half (½) in. on any cane
Shrubs–deciduous[1]	18 inches	~~24~~ 18 inches	n/a	3 gallon ~~C~~container~~ized~~ (min.)
Shrubs–large evergreen[1]	n/a	24 inches	n/a	5 gallon container (min.)
Shrubs–medium and small evergreen[1]	15 inches	18 inches	n/a	3 gallon container (min.)
[1] Shrubs shall meet either the required minimum spread or minimum height at time of planting.				

(b) **Installation Standards**.

(1) Installation of trees and landscape materials shall be in accordance with the standards established by the American National Standards Institute (ANSI).

[1] Minimum spread is a proposed new metric for shrub size. Shrubs would be required to meet either the minimum required spread or minimum required height at the time of planting. The American Standard for Nursery Stock (ANSI Z60.1) specifies how to measure spread (see https://hort.ifas.ufl.edu/woody/american-standard.shtml).

(2) Root barriers shall be installed within landscape/streetyard areas with less than seven (7) feet between the back of curb and the sidewalk to prevent root penetration and destruction of infrastructure.

(3) Large and medium canopy trees shall not be planted underneath or directly adjacent to overhead power lines and shall be a minimum of ten (10) feet from any building or underground utility unless a root barrier is used.

(4) Small trees and palms shall be a minimum of five (5) feet from any building or underground utility.

(5) Permanent built in or temporary water systems shall be installed to ensure the plants will survive the critical establishment period. This may include the use of tree gator watering bags for replacement or new trees.

(c) **Planting Bond.** A planting bond for tree and/or landscape installation that cannot be planted because of continued construction, weather, and/or plant availability may be utilized for a period of up to six (6) months. This bond allows a project to receive a certificate of occupancy once all other requirements have been met. The planting bond shall be equal to one hundred (100) percent of the total cost of materials and installation, plus fifteen (15) percent contingency. The planting bond will be released upon final inspection and compliance with the approved landscaping plan. Planting bonds shall be in the form of cashier's check, bond, or letter of credit.

(d) **Maintenance Guarantee.**[2]

(1) **Maintenance Guarantee Required.** Prior to the issuance of a Certificate of Occupancy, the developer shall submit a maintenance guarantee in the form provided in **Paragraph (d)(3),** below, for all of the landscaping required to meet the provisions of this Division.

(2) **Amount of Maintenance Guarantee.** The amount of the guarantee shall be twenty-five (25) percent of the total cost of landscaping installation, including materials and maintenance, as identified by a registered landscape architect, and approved by the Community Development Director ~~plus a fifteen (15) percent contingency~~. The maintenance guarantee shall remain in effect for a minimum of two (2) years after issuance of the Certificate of Occupancy. After one year and upon approval of the Community Development Director, the maintenance bond may be reduced to fifty (50) percent of the total cost of the original bond.

(3) **Type of Security.** The security shall be in the form of a maintenance bond, an irrevocable letter of credit, or cashier's check.

(4) **Release of Maintenance Guarantee.** Prior to the Community Development Director releasing/closing the maintenance guarantee, the

[2] These proposed new provisions requiring a maintenance guarantee for landscaping align with the County's current requirements for subdivision improvements [see UDO Article III, Section 114-366(o)].

applicant shall submit a request for final inspection no less than thirty (30) days but no more than sixty (60) days in advance of the maintenance guarantee expiring. If the Community Development Director or duly authorized representative, determines the required landscaping does not comply with the maintenance standards specified in **Section 114-633(e)**, below, the applicant shall be required to take the necessary corrective action to meet the required standards. The Community Development Director may require an updated registered landscape architect's cost estimate and an updated/amended maintenance guarantee.

~~(c)~~(e) **Maintenance Standards.**

(1) All plant material shall be maintained in good condition at all times in accordance with standards established by ANSI. All required plantings that die or are destroyed must be replaced, during the next suitable planting season.

(2) To ensure the viability of all plant material, the landscape plan and/or tree protection and preservation plan shall identify the permanent water system.

(3) Attaching lights, signage, fence rails, and any other items to trees is strictly prohibited.

(4) All sites are required to remain in compliance with the requirements for development of this division and are subject to inspection by the County for this purpose. If deficiencies are found, the owner of the property shall be notified to correct the deficiencies within ninety (90) days. If the deficiencies are not corrected in ninety (90) days, the County will seek administrative or judicial relief, as appropriate.

(5) From the effective date of this UDO, no person, firm, corporation or other entity shall trim, prune, cut, excavate near, dig or trench near, or otherwise disturb any tree on any property owned or controlled by the County and subject to this UDO without strictly complying with the following regulations:

a. Trees on public property may be pruned for utility line clearance only by tree pruners who have attended a certified utility line training course within a 12-month period of pruning activity. At each pruning site, names of pruning crew with date of certification shall be available for County review. All pruning of public trees shall be done in accordance with the American National Standard for Tree Care Operations (ANSI A300-2001) and the most current standards as developed by the National Arborist Association.

b. Requirements pertaining to utility companies.

1. Prior to conducting any non-emergency tree pruning, all utility companies shall notify the Community Development Director in writing, no less than three (3) days prior to the start of any work.

2. Utilities and telecommunications companies shall use directional pruning unless the County otherwise consents in writing.

3. The County may halt the cutting when it is deemed to be detrimental to any protected tree or when the cutting exceeds what is needed for continued utility service.

4. When in the judgment of a utility company and the Community Development Director, a tree interferes with the safe and reliable operation of the electric power system along a street right-of-way and cannot be pruned in accordance with ANSI Standard A300 to provide the required clearance, the utility company may offer to remove the tree and replant an acceptable specie tree for the location or in a location mutually acceptable to the County, the utility company, and the property owner. Such trees may be planted on public land, or private property, within the limitations and intent of this section.

~~(d)~~(f) **Protection of Trees During Site Development and Construction.**

(1) The area directly beneath and covered by the canopy of a tree shall be designated as a tree protection zone (see **Exhibit 633b**: Tree Protection Zone) and shall be kept safe from harmful impact during construction and site development.

(2) Trees designated on the tree protection and preservation plan as protected trees must be completely enclosed by rigid tree protection fencing as approved by a licensed Georgia Landscape Architect or International Society of Arboriculture ISA certified Arborist prior to clearing or grading or the erection of any building. Tree protection fencing must be located as described on the tree protection and preservation plan.

(3) Tree protection fencing must remain in place until all construction has been completed or final occupancy permit has been issued, whichever is last.

(4) Failure to install tree protection fencing prior to any clearing, demolition, or construction will result in the loss of tree protection credits, a stop work order, and/or a possible fine.

(5) Any damage to protected trees, breach of the Tree Protection Zone, or other protection violation outlined herein which occurs during site development and construction phases must be documented and reported to the Community Development Director within seven (7) days.

Exhibit 633b: Fencing for Tree Protection Zone

~~(e)~~(g) **General Tree Protection.**

(1) The area directly beneath and within the drip line of trees shall be designated as the critical root zone (see **Exhibit 633c**).

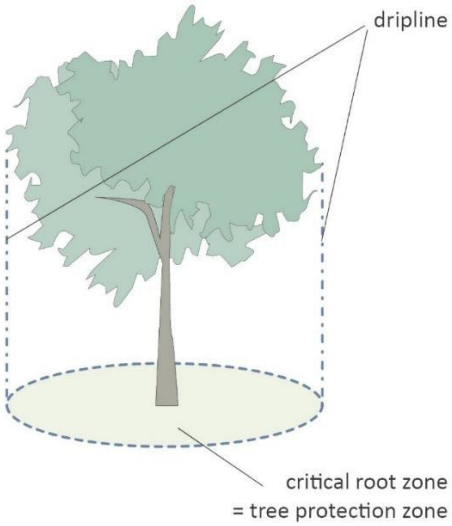
(2) No soil disturbance or compaction, stock piling of soil or other construction materials, vehicular traffic, or storage of equipment are allowed in the critical root zone.

(3) No ropes, signs, wires, unprotected electrical installation, or other device or material shall be secured or fastened around or through a tree.

(4) Toxic chemicals, gas, smoke, salt brine, oil, or other injurious substances shall not be stored or allowed to seep, drain, or empty within the critical root zone.

(5) Except for sidewalks and curb and gutter, no paving with concrete, asphalt, or other impervious material within the drip line of trees to be retained shall be allowed.

Exhibit 633c: Critical Root Zone



Section 114-634. Canopy Retention and Tree Preservation

(a) **Purpose.** The purpose of this section is to maintain tree canopy coverage in Bryan County and to protect and preserve Heritage and Historic Trees. These provisions apply to residential and non-residential properties and development as identified herein.

(b) **Canopy Retention.**

(1) **Canopy Requirements.** All applicable development shall be required to maintain a minimum tree canopy of forty (40) percent. Trees may be tiered and grouped with small canopy trees planted under the canopy of a new or existing large or medium canopy tree; however, a maximum of three small canopy trees per one large or medium canopy tree shall be allowed in calculating total canopy coverage. Total canopy coverage shall be computed from sum of the small, medium or large canopy trees retained or planted. All trees retained or planted subject to other provisions of this division may be used to satisfy this requirement.

(2) **Applicability**. Canopy requirements of this section are applicable to:

a. Major subdivisions (including planned developments) being developed;

b. Non-residential, multi-family, and mixed-use projects (including commercial development in planned developments) being developed;

c. Any activity requiring issuance of a land disturbance permit, except for individual residential lots and minor subdivisions. .

(3) **Canopy Analysis**. The tree protection and preservation plan, including tree survey, shall be submitted with landscape plans as required in

Section 114-420. The plan shall be based on the gross area to be developed and shall show the canopy line for each proposed tree. Once the developer sells individual lots, the builder/owner is responsible for implementing the plan for individual lots.

(4) **Standards for Compliance**. The canopy requirement must be met whether or not a site had trees prior to development or disturbance of the applicable site. The canopy may be achieved by preserving existing trees, by planting new trees according to the minimum standards of this UDO or by a combination of the two. Minimum tree canopy shall be calculated and established pursuant to the formula and analysis set forth in **Appendix C** to this UDO. Any existing tree of not less than six (6) inches DBH left in good growing condition on the property is eligible to be counted toward the minimum required canopy and has to be protected. Existing trees that will remain and be used toward meeting minimum canopy requirements, shall be identified on the tree protection and preservation plan of the required landscape plan.

(5) **Trees in Wetlands**. Fifty (50) percent of the canopy coverage in wetlands can be utilized to satisfy the canopy coverage requirements. If canopy coverage in wetlands meets the forty (40) percent gross canopy coverage required by this UDO, the developer/builder is still be required to meet the planting requirements identified in other sections of this UDO, (e.g., street tree requirement buffers, screening, and parking lot planting).

(6) **Qualifying Trees**. Trees replanted to achieve canopy requirements are to be selected from species listed in **Section 114-635.** Indigenous species may be selected for replanting even though it may not be included in **Section 114-635 upon approval by the Community Development Director**. In addition, replanting shall be at the ratio of not less than one large or medium canopy tree for every three small canopy trees. Canopy credit may be met by planting all large or medium canopy trees, but not by planting only small canopy trees. No more than twenty-five (25) percent of any one species may be included in any replanting plan. All replacement trees will be maintained properly to ensure their survivability.

(c) **Tree Preservation.**

(1) **Protected Tree Classifications**. These regulations shall apply to two (2) categories of trees: Heritage Trees and Historic Trees. Heritage Trees and Historic Trees shall be collectively known as Protected Trees.

a. **Heritage Tree**. All trees meeting a minimum of sixteen (16) inches diameter at breast height (dbh) up to twenty-eight (28) inches dbh.

b. **Historic Tree**. A historic tree, due to its age and stature, is considered to have irreplaceable value and is defined as any tree twenty-eight (28) inches in dbh or greater.

(2) **Removal of Single/Individual Trees.** Except as otherwise exempt, it shall

be unlawful to fell, improperly prune, or otherwise destroy a Protected Tree without first obtaining a tree removal permit from the Community Development Director. A tree removal permit shall not be necessary to remove a tree creating imminent danger to other trees, permanent structures, public utilities, rights-of-way or persons or for the ordinary pruning, trimming, and maintenance of a Protected Tree. A tree posing imminent danger shall be defined as one damaged by a storm, fire, or vehicular accident such that its structural integrity is seriously compromised and that the tree can be reasonably expected to fall and injure persons or structures. Applications for permit shall be submitted as outlined in Article IV.

(3) **Major Subdivision/Site Plan Development**. All applications for sketch plat, construction plans or site plan approval, must include a Tree Survey with Protected Trees identified. The Tree Survey may be submitted with required landscape plans or separately. The Tree Survey shall comply with the submittal requirements identified **Section 114-420**. Protected Trees, unless otherwise permitted by these regulations, shall not be removed or be caused to be removed until such Construction Plans and Landscape Plans are approved.

(4) **Standards for Property Development**. The following criteria shall be followed with respect to the applicable property development:

a. **Subdivision of parcel**: The subdivider shall make conscious efforts to avoid Protected Trees in proposing placement of rights-of-way and easements. Additionally, lots shall be platted in a way that avoids removal of historic trees or groupings of heritage trees such as locating them in the middle of proposed lots. Lot lines should be platted adjacent to Protected Trees to retain them as design features and vegetative buffers and to mitigate storm water run-off and erosion problems.

b. **Building envelopes**: Historic trees within proposed building envelopes shall be mitigated, in accordance with **paragraph (f)** of this section. Heritage trees within proposed building envelopes, as well as those within twenty (20) feet of the envelope, may be removed when necessary without mitigation.

c. **Yards and buffers**: Protected Trees shall not be removed from required yards, streetyards, or buffers. A Protected Tree may be limbed up if located outside a required buffer, or if located within a required visual buffer or clearance zone. Heritage trees may be limbed up to eight (8) feet, while Historic trees may be limbed up to sixteen (16) feet to provide view sheds.

d. **Means of access and parking**: Historic trees shall not be removed to make way for parking lots, parking space, drive aisles, or driveways, unless the applicant demonstrates to the satisfaction of the Community Development Director that no reasonable alternative exists. If removal is permitted, the applicant shall

mitigate as required in **paragraph (f)** of this section. Heritage trees may be removed in these locations, but mitigation shall be required in accordance with **paragraph (f)** of this section.

e. **Outdoor uses and active recreation areas**. Protected trees may be removed on land where the proposed principal use is conducted primarily outside; provided, mitigation shall be required in accordance with **paragraph (f)** of this section. The Community Development Director shall determine whether the proposed outdoor use qualifies under this provision and that the Protected Tree removal is the minimum necessary to accommodate the proposed use. Qualifying uses shall include, but are not limited to: outdoor sales areas with minimal ancillary indoor space, transportation and construction businesses that store fleet vehicles on site, outdoor storage of oversized bulk items that cannot practically be stored under roof, industrial activities and processes that do not occur under roof, as well as recreation areas, such as golf courses, athletic fields, courts, and pools managed by schools, public recreation departments, country clubs, home owners associations and other legally established organizations.

(5) **Waters of the State**: Protected trees within twenty-five (25) feet of any water of the State shall be preserved and no disturbance shall occur within the critical root zone, even if more than twenty-five (25) feet distant from such water.

(6) **Streets**: Protected Trees may be removed without mitigation from rights-of-way to allow for arterial and collector street construction, including widening, intersection improvements, parallel bicycle/pedestrian improvements, and drainage improvements. Historic trees removed for construction of local street projects shall be mitigated in accordance with **paragraph (f)** of this section, while Heritage trees may be removed from local street rights-of-way without mitigation. This provision only applies to projects undertaken by local or State government.

(7) **Water, sewer, and drainage improvements**: Protected trees may be removed, but must be mitigated in accordance with **paragraph (f)** of this section, for installation of water, sewer, and drainage infrastructure and implementation of associated easements. This provision only applies to projects undertaken by local or State government.

(d) **Timbering/Logging**. If a property owner timbers/logs a property pursuant to silviculture operations, the property owner, including successors in interest, may not submit an application for sketch plat, site plan, or construction plan approval for a period of two (2) years after the end of silviculture operations unless the property owner conducted a tree survey in accordance with this UDO and submitted the tree survey to the Community Development Department. All Protected Trees identified on the tree survey that are removed shall be mitigated if the property owner seeks to develop the property before the expiration of the two-year period.

(e) **Violation and Penalty.**

(1) The removal, damage or destruction of a Protected Tree without a required tree removal permit or approval of the tree preservation and protection plan of the landscape plan, shall constitute a violation of this UDO. Each Protected Tree that is removed, damaged or destroyed shall constitute a separate offense. Each day during which the loss of the tree goes unmitigated, as provided below, shall be judged a separate offense.

(2) In lieu of any fines and penalties incurred by a violator of this section, the Community Development Director may require tree replacement as a condition of granting Certificates of Occupancy. Replacement trees shall be required such that the total caliper-inches of new trees shall be equivalent to a fifty (50) percent increase in the mitigation requirements as set forth in in accordance with **paragraph (f)** of this section. In no case, however, shall any replacement tree measure less than four (4) inch dbh for Heritage Trees and Historic Trees.

(3) In the event that violations of this section result in the issuance of a stop work order, the violator shall be responsible for tree replacement, payment of fines or posting a financial guarantee, as determined by the Community Development Director, before construction is allowed to resume.

(4) In the event that the violator of tree protection standards cannot be identified and located, the developer shall be held responsible for fines and mitigation.

(f) **Mitigation for Tree Removal; Fee in Lieu**. Trees planted for mitigation shall meet performance standards per this section. In addition, the following requirements shall apply:

(1) Mitigation for Heritage Trees shall occur at a rate of fifty (50) percent, where every two (2) inches of Heritage Trees removed, measured in dbh, shall be replaced by one (1) inch of mitigation trees, measured in caliper-inches.

(2) Mitigation for Historic trees shall occur at a rate of 100 percent, where every inch of Historic trees removed, measured in dbh, shall be replaced by one (1) inch of mitigation trees, measured in caliper-inches.

(3) Any tree planted for mitigation shall measure at least four (4) inches dbh for Heritage trees and Historic trees, at the time of planting.

(4) Any tree at least six (6) inches dbh but less than sixteen (16) inches dbh retained within the area of disturbance may be retained to contribute, inch for inch, to a tree mitigation requirement; provided, the tree does not stand in a wetland, any required buffer, or other area in which the tree would otherwise be required to be conserved. Such trees shall be protected as Heritage Trees.

(5) In lieu of planting trees required for mitigation, the developer may, if

approved by Community Development Director, pay a fee per caliper-inch in an amount set by the Board of Commissioners. The fee shall be based on the current cost, at wholesale value, of installing a required tree to standards of the American Nursery and Landscape Association and its maintenance for one (1) year.

(6) Fees in lieu shall be put into an account reserved solely for the beautification of public lands and rights-of-way in Bryan County.

(7) Trees planted for mitigation in new developments shall be in addition to those required for streetscapes, buffering and parking lots and shall be used to create a street yard streetyard in existing developments where such streetyard does not currently exist.

Section 114-635. Plant Lists

(a) **Large Canopy Trees**: Acceptable large canopy trees are listed in **Exhibit 635a**. Large canopy trees reach heights of fifty (50) feet or taller, and are suitable for areas with more than 400 square feet of total planting area.

Exhibit 635a: Large Canopy Trees

Common/ Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Beech, American *Fagus grandifolia*	50-75' h 40-80' w	PS/FS	L	S	D	Native. Needs ample room above and below ground. Acid soil. Fruit attracts wildlife, no litter, Zones 4-9
Blackgum *Nyssa sylvatica*	65-75' h 25-35' w	PS/FS	H	S	D	Native. Soil pH below 6 best, texture tolerant, drought tolerant, wet soil tolerant. Fruit attracts wildlife, some litter. Zones 4-9
Cypress, bald *Taxodium distichum*	60-80' h 25-35' w	FS/PS	M	F	D	Native. Drought & wet tolerant. 'Knees' form in wet areas. Tolerates compaction. Zones 4-11
Cypress, pond *Taxodium ascendens*	50-60' h 50-60' w	PS/FS	H	F	D	Native. Soil adaptable below 7.5. Knobby 'knees' form in moist areas. Attracts wildlife. No litter. Zones 5-9
Hickory, pignut *Carya glabra*	50-60' h 30-40' w	PS/FS	M	M	D	Native. Soil texture adaptable. Drought tolerant. Nuts attract wildlife. Zones 4-9
Hickory, shagbark *Carya ovata*	60-80' h 25-35' w	PS/FS	H	S	D	Native. Soil texture adaptable. Abundant nuts attract wildlife. Shaggy bark attractive. Zones 4-8

Common/ Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Magnolia, Southern *Magnolia grandiflora*	60-80' h 30-40' w	PS/FS	M	M	E	Native. Soil adaptable. Bark is thin, protect from mechanical injury. White showy blooms in spring & summer. Good cultivars. Zones 7-9
Maple, Red *Acer rubrum*	60-75' h 25-35' w	PS/FS	H	F	D	Native. Prefers acidic soil, texture tolerant, wet tolerant. Bark is thin. Fruit attracts wildlife. Many cultivars. Zones 4-9
Oak, laurel/darlington *Quercus laurifolia*	60-70' h 50' w	PS/FS	H	F	SE	Native. Soil adaptable. Roots will heave sidewalks. Acorns attract wildlife, creates some litter. Zones 6- 10
Oak, live *Quercus virginiana*	60-80' h 60-120' w	PS/FS	H	M	E	Native. Soil adaptable. Roots will eventually heave sidewalks. Good wind resistance. Some litter. Zones 8- 10
Oak, shumard *Quercus shumardii*	60-80' h 40-50' w	FS	M	F	D	Native. Soil texture adaptable, acidic. Urban tolerant. Acorns attract wildlife. Some litter. Zones 5-9
Oak, southern red *Quercus falcata*	60-80' h 60-70' w	FS	M	M	D	Native. Acidic soil, all textures, urban tolerant. Fruit attracts wildlife, no significant litter. Zones 7-9
Oak, scarlet *Quercus coccinea*	60-75' h 45-60' w	FS	M	M	D	Native. Acidic soil, all textures. Needs ample root space. Nuts attract wildlife. Some litter. Zones 5-8
Oak, swamp chestnut *Quercus michauxii*	60-70' h 30-50' w	PS/FS	M	M	D	Native. Acidic soil, all textures, occasional wet. Leaf litter persistent, acorns for wildlife. Zones 6-9
Oak, white *Quercus alba*	60-100' h 60-80' w	PS/FS	H	M	D	Native. Acidic soil, all textures. Protect roots from disturbances. Nuts attract wildlife. Some litter. Zones 3-9

Common/ Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Oak, willow *Quercus phellos*	60-75' h 40-60' w	FS	M	F	D	Native. Acidic soil, all textures, occasional wet, drought, urban tolerant. Nuts attract wildlife. Some litter. Zones 5-9
Pine, loblolly *Pinus taeda*	50-80' h 30' w	FS	M	F	E	Native. Soil texture adaptable, acidic. Thick bark - resistant to fire. Needle drop prolific. Zones 6-9
Pine, longleaf *Pinus palustris*	60-80' h 30-40' w	FS	M	F	E	Native. Soil texture adaptable. Beautiful bark. Needle and cone drop prolific. Drought tolerant once established. Zones 7-10
Redcedar, eastern *Juniperus virginiana*	40-50' h 8-25' w	FS	H	F	E	Native. Soil pH and texture tolerant. Blue fruit attracts wildlife. Good wind break, urban tolerant. Zones 3-9
Sweetgum *Liquidambar styraciflua*	75' h 50' w	PS/FS	H	M	D	Native. Soil pH of 7.5 or less. Surface roots. Fruit attract wildlife, significant litter. Cultivar 'Rotundifolia' fruitless. Zones 5-9
Sycamore, American *Platanus occidentalis*	75-90' h 60-70' w	FS	L	F	D	Native. Soil pH and texture adaptable. Prefers moist soil. Roots may heave sidewalks. Showy bark. Zones 4-9
Tulip poplar *Liriodendron tulipifera*	80-120' h 25-40' w	FS	H	F	D	Native. Acidic soil, occasional wet. Avoid drought & salt. Showy greenish- yellow blooms in spring. Some leaf drop in high heat. Zones 4-9
Zelkova, Japanese *Zelkova serrata*	50-90' h 50-75' w	FS	H	M	D	Japan. Soil adaptable. Drought & urban tolerant once established. Cultivar 'Green Vase' elm-like. Zones 5-8
KEY						
Sun/shade exposure:	Growth rate:			Pest resistance:		Type:

Common/ Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
FS = Full sun	S = Slow (less than 1' per year)			H = High	D = Deciduous	
PS = Part sun	M = Medium (1-2' per year)			M = Medium	E = Evergreen	
S = Shade	F = Fast (more than 2' per year)			L = Low	SE - Semi Evergreen	

(b) **Medium Canopy Trees**: Acceptable medium canopy trees are listed in **Exhibit 635b**. Medium canopy trees reach heights of thirty (30) to fifty (50) feet, and are suitable for areas with more than 100 to 200 square feet of total planting area.

Exhibit 635b: Medium Canopy Trees

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Birch, river *Betula nigra* 'Heritage'	40-50' h 40-50' w	PS/FS	M	F	D	Native. Acidic soil. Drought sensitive in confined spaces. Roots need room. Cultivars available. Zones 3B-9
Elm, lacebark *Ulmus Parvifolia* 'Drake'	40-50' h 35-50' w	FS	H	F	D	Asia. Soil adaptable. Drought tolerant once established. Thin bark. Urban tolerant. Zones 5-9
Goldenraintree *Koelreuteria paniculata*	30-40' h 30-40' w	FS/PS	M	M	D	China. Soil adaptable. Salt, drought, urban tolerant. Bright yellow flowers in spring. Zones 5-9
Holly, East Palatka *Ilex x attenuata*	30-45' h 10-15' w	FS	M	M	E	Florida natural hybrid. Urban & drought tolerant once established. Red berries attract wildlife. Zones 7-9
Holly, American *Ilex opaca*	40-50' h 15-25' w	FS	M	S	E	Native. Salt and drought tolerant once established. Red berries attract birds, no litter. Zones 5-9
Holly, Nellie R. Stevens *Ilex x*	20-30' h 10-15' w	FS	H	M	E	Hybrid. Soil texture tolerant. Needs male and female plants for berries. Drought tolerant. Showy red berries & deep green leaves. Zones 6-9

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Holly, Savannah *Ilex x attemtata*	30-45' h 6-10' w	FS	M	M	E	Hybrid. Acidic soil, urban tolerant. Red berries attract birds, no litter. Zones 6-9
Loquat *Eriobotrya japonica*	20-30' h 30-35' w	PS/FS	M	M	E	China. Southern range only. Texture tolerant. Well drained soil, afternoon shade. Orange or yellow fruit attracts wildlife, litter. Zones 8-10
Magnolia, sweetbay *Magnolia virginiana*	40-50' h 15-25' w	PS	M	M	D	Native. Acidic soil. Tolerates wetlands. Flood & drought tolerant. Showy, white, fragrant flowers. Zones 5-9
Magnolia, Southern *Magnolia grandiflora*	30-50' h 15-30' w	FS	H	M	E	Native. Soil adaptable. White showy blooms in summer & early fall. Smaller leaves than species. Zones 6-9
Maple, trident *Acer buergerianum*	30-40' h 25' w	PS/FS	H	M	D	China. Acidic, well-drained soil. Urban, salt & wind tolerant. Attractive bark. Zones 5-8
Oak, overcup *Quercus lyrata*	35-50' h 35-50' w	FS	H	M	D	Native. Soil adaptable, wet & drought tolerant once established. Urban tolerant. Acorns attract wildlife, significant litter. Zones 5-9
Palm, cabbage *Sabal palmetto*	40-50' h 10-12' w	PS/FS	H	S	E	Native. Soil tolerant, frond and fruit litter messy. Needs irrigation until established as all cut roots die back. Southern region only. Zones 8B-11
Palm, windmill *Trachycarpus fortunei*	20-40' h 6-10' w	PS/FS	M	S	E	China. Soil texture adaptable. Drought tolerant once established. Protect from wind. Southern range of State only. Zones 8A-10B

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Pistachio, Chinese *Pistachio chine sis*	25-35' h 25-35' w	FS/PS	H	M	D	China. Soil texture, pH, drought, urban tolerant. Fruit causes some litter. Zones 6-9
Redbud, eastern *Cerci's Canadensis* 'Forest Pansy'	20-30' h 15-30' w	PS	M	F	D	Native. Light, rich, moist soil, texture adaptable. Showy purple blooms in spring. Cultivar 'Texas White' good. Short lived. Zones 4-9
Silver bell, Carolina *Haleiwa Carolina*	20-40' h 15-30' w	PS/FS	H	M	D	Native. Acidic soil. Drought sensitive in full sun, roots need room. Showy white blooms in spring. Zones 5-8
Stewart, tall *Stewart monadelpha*	25-35' h 15-25' w	PS/FS	H	S	D	Japan. Acidic soils. Thin bark, attractive bark. White, camellia-like blooms in summer. Part shade best in 8B. Zones 6-8
Yellowwood, American *Cladastris kentukea*	30-50' h 40-50' w	PS/FS	H	M	D	Native. Needs pruning while young. White fragrant blooms. Tolerates urban conditions. Zones 4-8

KEY			
Sun/shade exposure:	Growth rate:	Pest resistance:	Type:
FS = Full sun	S = Slow (less than 1' per year)	H = High	D = Deciduous
PS = Part sun	M = Medium (1-2' per year)	M = Medium	E = Evergreen
S = Shade	F = Fast (more than 2' per year)	L = Low	SE - Semi Evergreen

(c) **Small Canopy Trees**: Acceptable small canopy trees are listed in **Exhibit 635c**. Small canopy trees reach heights of up to twenty-five (25) feet and are suitable for areas with more than sixty (60) square feet of total planting area.

Exhibit 635c: Small Canopy Trees

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Chastetree *Vitex agnus-castus*	10-15' h 15-20' w	PS/FS	M	F	D	Europe. Soil & pH adaptable. Showy lavender blooms. Zones 7-8
Cherry, Okame *Prunus x incamp* 'Okame'	15-25' h 20' w	PS/FS	M	M	D	Hybrid. Soil texture and pH adaptable. Roots need room. Pink showy blooms. Fruit attracts birds. Zones 7-9
Crapemyrtle *Lagerstroemia indica*	15-30' h 15-25' w	FS	H	M	D	China. Soil adaptable, urban tolerant, drought tolerant once established. Showy summer blooms. Zones 7-9
Dogwood, flowering *Cornus florida*	20-30' h 20' w	PS	M	M	D	Native. Part shade. Drought sensitive, low salt tolerance, needs good drainage. White showy flowers. Horizontal branching pattern. Zones 5-9
Dogwood, kousa *Cormus kousa*	15-20' h 15-20' w	PS/FS	M	S	D	Japan. Soil adaptable. Part shade, needs water. Roots need room. Showy white blooms in spring. Fruit attracts birds. Zones 5-8
Fringetree *Chionanthus virginicus*	12-15' h 10-15' w	PS/FS	M	S	D	Native. Acidic soil. Thin bark easily damaged. Urban tolerant. Showy white blooms in spring. Fruit attracts birds. Zones 4-9
Holly, yaupon *Ilex vomitoria* 'Pendula'	15-20' h 15-20' w	S/FS	M	M	E	Native. Soil & pH greatly adaptable. Urban tolerant. Thin bark. Red berries attract wildlife. Zones 7-10

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
Maple, amur *Acer ginnala*	15-20' h 15-20' w	PS/FS	H	M	D	Japan. Soil adaptable. Drought tolerant once established. Showy white to yellow blooms in spring. Bright red fruit, some litter. Zones 3-8
Magnolia, star *Magnolia stellata*	15-20' h 10-15' w	PS/FS	M	S	D	Japan. Acidic rich soil, all textures. Not drought tolerant. White or pink showy blooms in spring. Zones 4-8
Magnolia, Southern *Magnolia grandiflora* 'Little Gem'	20-25' h 10-15' w	PS/FS	M	M	E	Native. Soil adaptable. Bark is thin, protect from mechanical injury. White showy blooms in summer and early fall. Zones 7-9
Palm, pindo *Butia capitata*	15-25' h 10-15' w	PS/FS	H	S	E	Brazil. Soil adaptable. Drought tolerant. Showy orange or yellow fruit attracts wildlife, significant litter. Southern range only. Zones 8B-11
Redbud, Chinese *Cercis chinensis*	10-15' h 6-10' w	PS/FS	M	F	D	China. Light, rich, moist soil. Showy purple blooms in spring. Zones 6-9
Redbud, Oklahoma *Cercis reniformis* 'Oklahoma'	20-30' h 15-30' w	PS/FS	M	F	D	Native. Soil & pH adaptable, salt sensitive, showy thick leaves. Zones 5-9
Snowbell, Japanese *Styrax japonicus*	20-30' h 15-25' w	PS/FS	H	M	D	Japan. Acidic loamy soil. Afternoon shade, protect from wind. Attractive exfoliating bark. Whit showy blooms in spring. Zones 6-8
Waxmyrtle *Myrica cerifera*	15-20' h 20-25' w	PS/FS	M	F	E	Native. Soil & pH adaptable, urban tolerant. Blue berries attract wildlife. Zones 8-11
KEY						
Sun/shade exposure:	Growth rate:			Pest resistance:		Type:

Common/Scientific Name	Height & Width	Sun/Shade	Insect & Disease Resistance	Growth Rate	Deciduous / Evergreen	Remarks
FS = Full sun	S = Slow (less than 1' per year)			H = High		D = Deciduous
PS = Part sun	M = Medium (1-2' per year)			M = Medium		E = Evergreen
S = Shade	F = Fast (more than 2' per year)			L = Low		SE - Semi Evergreen

(d) **Shrubs**: Acceptable shrubs are listed in **Exhibits 635d-h**, which distinguish shrubs based on size and whether they are evergreen or deciduous.

Exhibit 635d: Large Evergreen Shrub Species List (Shrubs 8-12 feet in height)

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Anise (See Illicium)			
Azalea sp. Southern Indica Azaleas:	PS		Shade in summer and in afternoon; acid soil
Bambusa multiplex Fernleaf Bamboo	S/Sh		Good for screens; contained clump; fast-growing; Pest free
Callistemon lanceolatus Bottlebrush	S	X	Red bloom spike in spring; thorny; pest-free; Use as background hedge or screen
Camellia japonica Camellia	PSh	X	No wet feet; blooms in fall-winter; tea scale; Rich, humousy acid soil
Camellia sasanqua Camellia	PSh	X	Same as above
Ceratiola ericoides Rosemary	S	X	Native shrub with lavender flowers in early spring; well-drained sandy soil.
Cleyera japonica Cleyera	PS/Sh	X	Upright; dark green leaves; pest-free
Elaeagnus pungens Elaeagnus	S,Sh	X	Rampant grower, needs lots of room; silvery lvs; Natural hedge or border; wildlife plantings; no pest
Fatsia japonica Japanese Fatsia	Sh	X	Coarse texture; white flowers in fall; blue berries in winter; tropical accent; dark green foliage.
Feijoa sellowiana Pineapple Guava	S	X	White flower in spring; edible fruit; pest-free Good shrub massing or screen.
Fortunella japonica Kumquat	S	X	Creamy fragrant flowers; edible fruit
Ilex cornuta Chinese Holly	S/PSh	X	Red or yellow fruit in fall; dark green leaves; scale a problem; Specimen or foundation planting.
Ilex cornuta 'Burfordii' Burford Holly	S/PSh	X	Orange-red berries; rapid, dense foliage; scale; Specimen or hedge planting

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Illicium anisatum Japanese Anise Tree	S/PSh	X	Coarse, aromatic leaves; pest-free Upright; Specimen or foundation planting
Illicium floridanum Florida Anise Tree	S/PSh	X	Moist to wet soil; deep red flowers in spring; Ornamental specimen
Illicium parviflorum Star Anise	S/PSh	X	Yellow-green flowers in June; aromatic leaves; Interesting fruit; Screen or hedge planting
Leucothoe populifolia Florida Leucothoe	Sh/PSh	X	White-pink flowers on old wood; irregular growth
Ligustrum japonicum 'Rotundifolium' Curlyleaf Ligustrum	S-PSh	X	Dark green foliage; columnar plant; twisted; slow growing; easily pruned into tight spaces.
Loropetalum chinense Evergreen Loropetalum	S-PSh	X	Feathery white or pink flowers in spring; irregular form; no pests; screen, shrub massing use.
Lyonia ferruginea Fetterbush	S-PSh		Native; leathery leaves; pink flowers in spring
Lyonia ligustrina Fetterbush	S-PSh		Same as above
Michelia figo Banana Shrub	S-Psh		Banana-scented cream flowers in April; Fragrant accent or shrub border.
Myrtus communis True Myrtle	S	X	White flowers in spring; aromatic berries on females; Fine textured specimen; hard to establish
Nerium oleander Common Oleander	S	X	Red, pink, yellow, or white flowers in summer; toxic; Specimen; shrub border, hedge or screen use.
Photinia x 'fraseri' Fraser Photinia	S	X	New leaves red; upright growth for screen, hedge or tree form; problems with disease.
Photinia glabra Redtip Photinia	S	X	New leaves red; creamy-white summer flowers; red fruit in fall; use as hedge; do not plant near red brick; disease.
Photinia serrulata Chinese Photinia	S	X	New leaves coppery red; flowers in spring; red summer fruit; rapid growth; use as specimen for large area.
Pittosporum tobira Pittosporum	S-PSh	X	Interesting branching habit; variegated form; fragrant spring flowers; accent plant, shrub massing orhedge.
Pyracantha koidzumi Formosa Firethorn	S-PSh	X	Bright red fall, winter fruit; specimen, screen, border; watch for scale; Cultivars: 'San Jose' spreading,'Santa Cruz' is prostrate form, 'Low Dense' is mounding, 'Victory' has showy dark-red berries
Raphiolepis umbellata 'Majestic Beauty' Indian Hawthorn	S-PSh	X	Fragrant pink or white flowers in spring; slow growing; salt tolerant; specimen, foundation planting.

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Ternstroemia gymnanther Cleyera	PSh		White flowers; red fruit in late summer; often confused with Cleyera japonica.
Viburnum macrophyllum Viburnum	S-Sh		Large, dark green leaves; upright; shrub borders, hedge use. May be damaged by extreme cold.
Viburnum odoratissimum Sweet Viburnum	S-PSh	X	Large, glossy leaves; white flowers; red-black fruit
Viburnum suspensum Sandankwa Viburnum	S-PSh	X	Dark green foliage; pest free; Shrub border or foundation planting; May be damaged by extreme cold.
Viburnum tinus Laurus tinus	S-PSh	X,M	White to pink flowers in winter; upright; border or screen; May be damaged by extreme cold -- use in protected areas.
Yucca aloifolia Spanish Bayonet	S-PSh	X	White flowers in summer; pest free; spiny leaves; specimen or protective screen use
KEY			
Sun/shade exposure:			
FS = Full sun			
PS = Part sun			
S = Shade			

Exhibit 635e: Large, Deciduous Shrub Species List (Shrubs 8-12 feet in height)

Common Name Botanical Name	Sun	Drought Tolerant	Comments
Althea (See Hibiscus)			
Baccharis halimifolia Groundsel Bush/Salt Myrtle	S	X	Native to salt marshes and dry uplands; showy white flowers in fall; natural borders; salt tolerance.
Cassia splendida Sun Cassia		X	Yellow flowers in fall; may dieback when cold. (Also Cassia corymbosa and others are good for fall color)
Cephalanthus occidentalis Sun Button Bush		Mod	Cream flowers; irregular form. Wet, natural areas
Chimonanthus praecox Wintersweet	S-PSh	X	Fragrant yellow flowers in January; dark green leaves; Shrub border use.
Deutzia scabra Fuzzy Deutzia	S		White flowers in May; tall and erect; shrub border or specimen; background for other plantings.
Exochorda racemose Pearlbush	S-PSh	X	White flowers in spring; mass planting use
Forsythia x intermedia Border Forsythia	S	X	Yellow flowers in early spring; good along banks, specimen planting; rapid growth; prune old canes annually; no pests.

Common Name Botanical Name	Sun	Drought Tolerant	Comments
Hibiscus syriacus Althea, Rose of Sharon	S		Grown for flowers: white, rose, lavender, pink in summer; Use in shrub border; cut back in spring for increased bloom
Hydrangea quercifolia Oak Leaf Hydrangea	PSh		Native with coarse oak-like leaves; large white flowers in spring; red fall color. 'Snow Queen' is upright cultivar.
Ilex ambigua Carolina Holly	S-PSh		Translucent red fruit; not common in nurseries
Kolkwitzia amabilis Beautybush	S	X	Pink flowers in spring; prune regularly to maintain shape; Shrub border use; pest free.
Lindera benzoin Spicebush	S-Sh	M	Yellow flowers in early spring; yellow fall color; irregular form; shrub border or naturalistic setting.
Philadelphus coronaries Mock Orange	S		Fragrant (orange blossom aroma) white flowers in spring; shrub border; irregular, rangy growth habit.
Rhododendron alabamense Alabama Azalea	PSh		Early flowering; fragrant white with gold flowers
Rhododendron arborescens Sweet Azalea	PSh		Mid to late flowering; fragrant white flowers
Rhododendron atlanticum Coastal Azalea	PSh	M	Early, fragrant white flowers; stoloniferous
Rhododendron austrinum Florida Azalea	PSh		Early, fragrant gold flowers
Rhododendron canascens Peidmont or Florida Pinxter	PSh		Fragrant, early pink flowers; Native; to 8' in ht. and width
Rhododendron prunifolium Plumleaf Azalea	PSh		Very late orange-red flowers
Rhododendron serrulatum Hammock- sweet Azalea	PSh		Late fragrant white flowers
Rhododendron flammeum Oconee Azalea	PSh	X	Yellow/orange flowers
Rhododendron viscosum Swamp Azalea	PSh		Mid season; fragrant, white flowers
Rosa laevigata Cherokee Rose		X	State Flower; white blooms in April
Viburnum nudum S-PSh Possumhaw Viburnum	Tol.		Flossy foliage; colorful fruit and fall foliage

Common Name Botanical Name	Sun	Drought Tolerant	Comments
Viburnum prunifolium Blackhaw Viburnum	S-PSh	X	Creamy flowers in May; dark green foliage; bronze red fall color; blue fruit in fall; fast growing;
KEY			
Sun/shade exposure:			
FS = Full sun			
PS = Part sun			
S = Shade			

Exhibit 635f: Medium Evergreen Shrub Species List (Shrubs 3-8 feet in height)

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Abelia grandiflora Glossy Abelia	S-Sh		Pink-white flowers in June; bronze winter foliage; medium hedge, border or background planting; attracts butterflies.
Aucuba japonica Japanese Aucuba	Sh		Shade; rapid growth; pest-free; coarse texture; variegated cultivars with gold color: Gold Dust Plant
Azalea species	Sh-PSh		Many cultivars: 'Red Ruffle,' ' Hino de Giri,' 'Snow,' 'Coral Bells,' etc.
Berberis julianae Wintergreen Barberry	S-PSh		Yellow bloom in spring; blue fruits; bronze/wine red leaves in winter; thorny; good barrier plant or hedge.
Cephalotaxus Harringtonia 'Drupacea'	PSh-Sh		Drooping branches with dark green foliage; ground cover or foundation planting
Euonymus japonicus Evergreen Euonymus	S-Sh		Compact form in sun; variegated leaves in some cultivars Susceptible to scale, pests, diseases; limit use.
Gardenia jasminoides Cape Jasmine	S-PSh		Fragrant white flowers in summer; Pests: scale, whitefly; Hedges, borders, specimen planting
Ilex cornuta 'Burfordii Nana Dwarf Burford Hol	S-PSh		Glossy foliage; red fruits; good screen, hedge use.
Ilex cornuta 'Carissa' Carissa Holly	S-Sh		Hedge, edging; dense dwarf form
Ilex cornuta 'Needlepoint' Needlepoint Chinese Holly	S		Long, narrow, twisted leaves; fast growth; dense foliage.
Ilex cornuta 'Rotunda' Dwarf Chinese Holly	S-Sh		Glossy, spiny foliage; tolerates hot, dry areas; tough plant; no pruning needed.
Ilex crenata 'Compacta' Roundleaf Holly	S-Sh		Dark green foliage; no fruit; pests; foundation plantings

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Ilex crenata 'Helleri' S-Sh Heller's Holly			Low spreading shrub with fine texture; scale, pests.
Ilex glabra Inkberry	S-Sh	X	Broad leaf; upright form; black berry; naturalistic plantings
Ilex vomitoria 'Nana' Dwarf Yaupon Holly	S-Sh	X	Taller than I. v. 'Stokes'; same as above.
Ilex vomitoria 'Stokes' Dwarf Schillings Holly	S-Sh	X	Smaller than I. v. 'Nana'; compact shape; no pruning; some pests; drought resistant; fine texture.
Leucothoe axillaris Coastal Leucothoe	Sh-PSh		White or pink flowers in April; dark foliage; graceful form; mass plantings; acid conditions.
Lyonia lucida Fetterbush	S-PSh	M	Same as above
Jasminum mesnyii Primrose Jasmine	S-PS		Mounding habit; pale yellow, semi-double flowers
Juniperus chinensis Juniper	S	X	Silvery blue to gold foliage; rapid growth; horizontal Chinese spreading; pests are a problem; 'Armstrong' 'Blue Vase' 'Hetzi' 'Glauca' 'Hills Blue' 'Mint Julep' 'Old Gold' and 'Pfitzeriana' are preferred cultivars.
Mahonia bealei Leatherleaf Mahonia	PSh-Sh		Yellow flowers in March; blue grape-like clusters of berries; Holly-like leaves; specimen, foundation planting
Mahonia fortune Chinese Mahonia	PSh-Sh		Dark purple berries; moderate growth rate; specimen
Nandina domestica Heavenly Bamboo	S-PSh		Bamboo-like foliage; cut out old canes; reddish foliage in winter; red berries in fall; white flowers in summer
Pittosporum tobira 'Wheeler's Dwarf' Dwarf Pittosporum	S-PSh		Small white fragrant flowers; shiny dark green leaves; dense foliage; cold damage; 'Laura' is variegated form
Pyracantha coccinea Scarlet Firethorn	S		Orange-red berries in fall; fast growth; thorns are toxic; pest problems; white flowers in spring; espaliers on walls.
Raphiolepis indica Indian Hawthorn	S-Psh		White or pink flowers in spring; rounded leaves; shrub borders, foundation plantings.
Yucca gloriosa Spanish Dagger	S	X	Greenish white flowers in September; spiny blue-green leaves; salt tolerant; barrier, specimen or accent plant.
KEY			
Sun/shade exposure:			
FS = Full sun			
PS = Part sun			
S = Shade			

Exhibit 635~~f~~g: Medium Deciduous Shrub Species List (Shrubs 3-8 feet in height)

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Buddleia alternifolia Butterfly Bush	S	X	Old fashioned plant with sprays of flowers; attracts butterflies
Buddleia davidii Butterfly Bush	S		White, pink, red or purple flowers all summer; accent plant or shrub border; attracts butterflies
Callicarpa americana American Beautyberry	S-PSh		Clusters of purple berries arranged around stem; color difficult to blend with other plants; naturalistic plantings.
Callicarpa japonicum Japanese Beautyberry	S-Psh		White berried plant with smaller leaves, drooping form; naturalistic borders.
Calycanthus floridus Sweetshrub	S-Sh		Fragrant purple flowers in spring; brown fruit; pest free; shrub border use.
Cassia corymbosa Flowery Senna	S	X	Showy golden flowers in summer-fall; fast growth; pest free; specimen plant; winter dieback possible.
Chaenomeles japonica Flowering Quince	S-PSh		White, pink or red flowers in winter-early spring; old fashioned plant
Chaenomeles speciosa Flowering Quince	S-PSh		Red, white, orange or pink flowers in early spring; pest free; color in shrub border; 'Nivales' - white, 'Cameo' - peach, 'Texas Scarlet' - bright red. Old fashioned plant.
Clethra alnifolia Sweet Pepperbush	PSh-Sh		White flowers in summer; moist soil; pest free; shrub border, naturalized area use; looks good in winter.
Hibiscus mutabilis "Confederate Rose"	S		Large, peony-shaped flower in pink, red, blooms in fall; Dies back to ground in winter, reappears in spring.
Hydrangea macrophylla Big Leaf Hydrangea	Sh-PSh		White, pink or blue flower clusters in summer; bare stalks in winter.
Itea virginica Virginia Sweetspire	S-PSh		White flowers; moist soil; good red fall color; mass plantings; 'Henry's Garnet' has excellent color.
Kerria japonica Japanese Kerria	S-PSh		Yellow flowers in spring; few pests; specimen or border plant; good against walls or fences.
Lantana camara Lantana	S	X	Blooms from spring to fall; rapid growth; color.
Lonicera fragrantissima Winter Honeysuckle	S		Tiny white fragrant flowers in winter; no pests; specimen
Spiraea prunifolia 'Plena' Bridalwreath Spiraea	S-Sh		White flower sprays in spring; rapid growth; informal use
Spiraea thunbergii Baby's Breath Spiraea	S-PSh		White flowers in January-February; informal plantings
Spiraea vanhouttei Vanhoutte Spiraea	S-Sh		White flowers in April; graceful specimen or border planting.
Tetrapanax papyriferus Rice Paper Plant	PSh		Large, coarse leaves; greenish flowers in fall; winterkill; accent or specimen plant; suckers from roots

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Vaccinium ashei Rabbiteye Blueberry	S		Large, edible fruit; white bellshaped flowers in May; organic acid soil; shrub border or specimen.
V. corymbosum	S		
V. stamineum Deerberry	S		Purple fruit

Exhibit 635~~g~~h: Small Evergreen Shrub Species List (Shrubs to 3 feet in height)

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Alexandrian-Laurel (See Danae)			
Ardisia crenata Coralberry	Sh		Autumn red berries; loose upright form with twisted leaves; seeds itself
Ardisia japonica Japanese Ardisia	Sh		Dark green foliage for ground cover use
Aucuba japonica 'Nana' Dwarf Aucuba	Sh		Scarlet berries on female plants; need males and females for bloom/fruit; no pests; accent or border plant in shade.
Azalea (See also Rhododendron)			
Berberis thunbergii Barberry	S-Psh		Semi-"evergreen" with reddish foliage; 'Rose Glow' and 'Crimson Pygmy' are good cultivars with rosy foliage
Buxus Harlandii Harland Boxwood	S-PSh		Fine texture; low hedge or edging; requires pruning; upright growth
Buxus microphylla 'Japonica' Japanese Littleleaf Box	S-Sh		Dark rich green color; mulch to provide moisture; pests; prune regularly; substitute for regular Boxwood; hedges
Cephalotaxus Harringtonia Prostrata' Plum Yew	Sh-Psh		Dark green foliage, upright; hedges, foundation planting
Conradina canescens Dixie Rosemary	S-Psh	X	Sandy soil; blue-gray leaves; shrub border Coastal dune native; aromatic foliage; endangered.
Cuphea hyssopifolia Mexican Heather	S-PSh	X	White or purple tiny flowers; small leaves; self-seeds; borders, edges.
Danae racemosa Alexandrian Laurel	Sh		Arching stems; dark corners
Daphne odora Winter Daphne	Sh-PSh		Fragrant flowers in February; dark green or variegated leaves; slow growing; fungal problems
Euonymus fortunei' Radicans Wintercreeper	S-PSh		Climbing shrub or groundcover; Susceptible toscale,pests; avoid wet soil; fungal diseases
Euonymus japonicus Dwarf Japanese Euonymus	S-Sh	Tol	Erect, dense foliage; Susceptible to scale, fungus; edging

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Gardenia jasminoides Radicans' Dwarf Gardenia	S-PSh		Fragrant white flowers in June ;susceptible to scale, whitefly;
Hypericum calycinum St. John's Wort	S-PSh		Reseeds; yellow flowers in late summer-fall; native.
Jasminum floridanum Showy Jasmine	PS-PSh		Glossy leaves; yellow flowers.
Nandina domestica 'Harbour Dwarf' Harbour Dwarf Nandina	S-PS		Small white flowers; red berries; compact form of nandina; dense mound of foliage; pest free.
Nandina domestica 'Atropurpurea Nana' Dwarf Nandina	S-Psh		Red fall color; mounded growth; cupped leaves
Rosmarinus officinalis Rosemary	S-PSh	X	Green fragrant leaves; blue or white flowers; poor soil; lime needed
Danae racemosa Alexandrian Laurel	Sh		Arching stems; dark corners
Ruscus aculeatus Butchers broom	S-Sh	X	Red berries when male and female plants present; tolerates drought and neglect; pest free.
St. John's Wort (See Hypericum)			
Santolina chamaecyparissus Lavender Cotton	S		Yellow flowers midsummer; silver-gray foliage; aromatic clumps
Santolina virens Green Santolina	S		Finely textured green leaves; poor sandy soils; borders
Serissa foetida Serissa	S		White flowers in spring-summer; fine texture; sandy soil; pest free; variegated form; massings or accents.
Serissa foetida 'Variegata' Variegated Serissa			See above
Skimmia japonica Japanese Skimmia	PSh-Sh		Fragrant white flowers in spring; scarlet berries in fall; need male and female plants; mounded form; moist, rich, acid soil; pest free; foundation and shrub massing.
Yucca filamentosa Adam's Needle	S	X	White flowers in summer; stiff blades; barrier, accent plant.
KEY			
Sun/shade exposure:			
FS = Full sun			
PS = Part sun			
S = Shade			

Exhibit 635~~hi~~: Small Deciduous Shrub Species List (Shrubs under 3 feet in height)

Botanical Name Common Name	Sun	Drought Tolerant	Comments
Almond, (See Prunus)			
Deutzia gracilis Slender Deutzia	S-PSh		White flowers in spring; pest resistant; slow growing Accent; shrub massing
Euonymus americanus Strawberry Bush	PSh		Irregular form; native plant good for natural plantings; strawberry-like fruit
Fothergilla gardenii Dwarf Bottlebrush	S-PSh		White fragrant flowers in April-May; yellow fall color; mass plantings or naturalistic settings.
Jasminum nudiflorum Winter Jasmine	S-Sh		January-February bloom with yellow flowers; fountain-like form; pest free; plant on banks, trailing over walls, etc.
Plumbago capensis Plumbago	S	X	Pale blue flowers in summer and fall; profuse bloomer; 'Alba' is white flower
Prunus glandulosa Flowering Almond	S		White or pink flower in spring; accent or specimen plant
Punica granatum 'Nana' Dwarf Pomegranate	S	X	Orange-red flowers in summer; red fruit in fall; salt tolerant hedges, borders or container use.
KEY			
Sun/shade exposure:			
FS = Full sun			
PS = Part sun			
S = Shade			